

Ordering information

S C M 3 - V 0.5 3 - Ru 6

Measuring input

NO	DC input (F ' S)	AC input (F ' S)
1	199,9 mV	199,9 mV
2	1,999 V	1,999 V
3	19,99 V	19,99 V
4	199,9 V	199,9 V
5	300 V	300 V
6	500V	3P,4W 400V

Ru	Under Voltage Relay - 1A.250V
Ro	Over Voltage Relay - 1A.250V

3	3 ½ digit - Average value - RMS value
4	4 ½ digit - Average value - RMS value

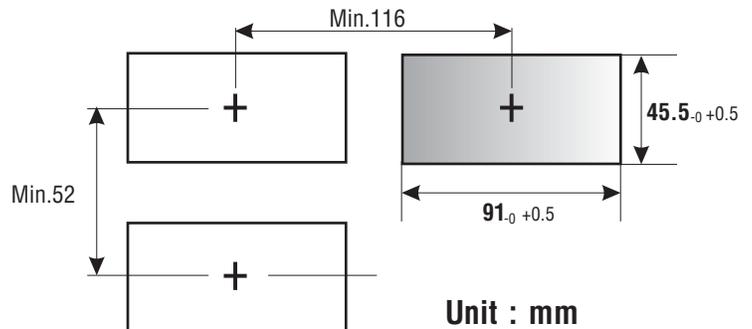
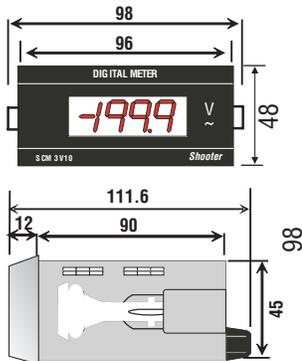
0.5	Class 0.5
1	Class 1

DV	DC voltage
AV	AC voltage

1	1 Element
3	3 Element (6 in 1)

M	Series Meter for DIN size W96 x H48mm
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Panel cut - out



■ Features

- Indicating 1999.
- AUTO ZERO and HOLD function.
- Available average measuring value for sine wave value/measuring value for root mean square for AC voltage.
- DIN size of W96 x H48.
- Diverse models of indicator, single preset, double preset.
- Available BCD output.

■ Rating

Model	SCM1DV05 -4-X	SCM -1DV-X-X SCM -1DV-X-X	SCM -1DV-05-3 Ru 4 SCM -1DV-01-3 Ro 5	SCM -1AV-05-3-Ro -6 SCM -1AV-05-3-Ru -6	SCM -1AV-05 SCM -3AV-01
Measuring	DC voltage	DC, AC voltage			
Power supply	5VDC	* 5VDC * 24 to 70VDC 100 to 240VAC/VDC 50/60Hz	* 24 to 70VDC * 100 to 240VAC/VDC 50/60Hz 100/220 VAC 50/60Hz		
Operating voltage range	90 to 110% rated voltage				
Power consumption	DC : 2W	DC : 2W, AC : 4VA		DC : 2W, AC : 5VA	
Display method	7 Segment LED Display				
Indicating accuracy	F.S ±0,2% rdg. ±1digit	DC : F ± 0,2% rdg. ± 1digit AC : F ± 0,5% rdg. ± 1digit			
Sampling control	300mS				
Operating method	Dual slope A/D conversion				
Response time	2sec (0 to Max)				
Max, input	150% per each range, but 400VAC is 120%				
Sampling time	2,50operation/sec				
Power consumption	—————			250VAC 1A 1C	250VAC 1A 1C x 2

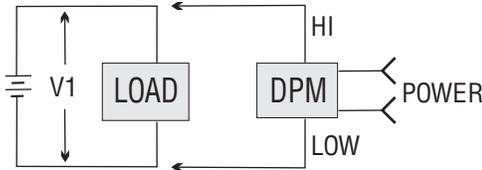
(*) mark in power spec. Is option.

■ Characteristic

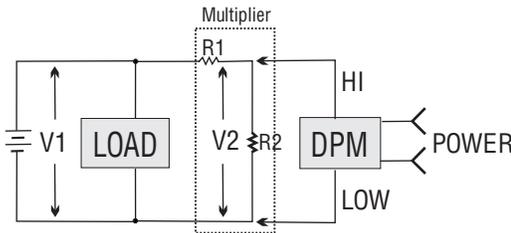
Insulation Resistance	100M Min. (At 500VDC) between power input terminal and control output terminal				
Impulse voltage	2000VAC 50/60Hz for 1 minute between power input terminal and control output terminal				
Noise	The square wave noise (pulse width :1 μs) by the noise simulator±300V	The square wave noise (pulse width 1μs) by the noise simulator ± 1KV			
Vibration	Mechanical durability	0,75mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 1hour			
	Malfunction durability	0,5mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 10 minutes			
Shock	Mechanical durability	300m/S ² (30G) in X, Y, Z directions for 3 times			
	Malfunction durability	100m/S ² (10G) in X, Y, Z directions for 3 times			
Ambient operting temperature	0 to 50°C	°			
Ambient storage temperature	-25 to 65°C (at non-freezing status)				
Ambient humidity	35 to 85% RH				
Weight	MS : About 52g	SCM : About 170g	SCM1DV:About 343g	SCM-6AV : About 434g	SCM-3AV :About 450g

■ **Features**

● **How to measure DC voltage**



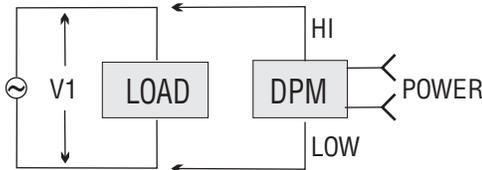
(When measuring voltage (V1) is lower than 300VDC)



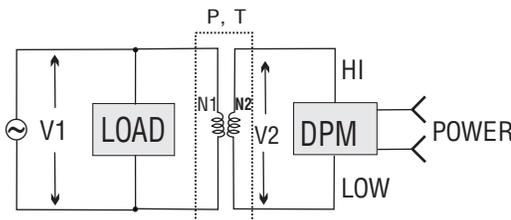
(When measuring voltage (V1) is higher than 300VDC)

* When measuring voltage (V1) is higher than 300VDC be sure to connect the multiplier (R1, R2) to be applied voltage (V2) lower than Max. Measuring voltage.

● **How to measure AC voltage**



(When measuring voltage (V1) is lower than 400VAC)

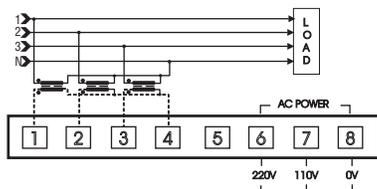


(When measuring voltage (V1) is higher than 400VAC)

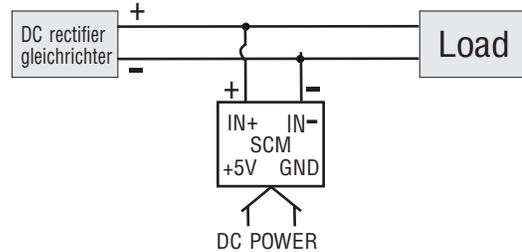
* When measuring voltage (V1) is higher than 400VAC be sure to connect the potential transformer (P, T).

* V2 must be lower than Max. Measuring voltage.

■ **How to measure AC Voltage 3P,4W - 450 VAC**



1) **Block diagram**



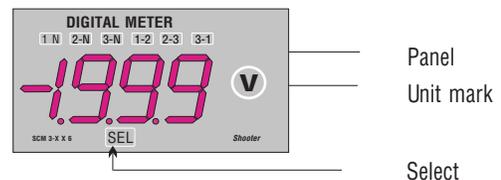
* When serial SCM meters are installed, be sure to connect the power as one adopter (SP-0305) per one meter, because the meter is not insulated between input circuit and power circuit

2) **Connection terminals**

Terminals No.	Items	Contents
1 2	+5V GND	The power terminal (5VDC)
3	HOLD	
4 5 6 7	D.P1 D.P2 D.P3 D.P COM	10^3 10^2 10^1 } Selection terminals of decimal point. - Common terminal of decimal point. $10^3 10^2 10^1$ 1.9.9.9
8 9 10	IN- NC IN+	Measuring signal input terminal

3) **Unit mark**

There is no unit mark in the SCM meter, please attach the unit mark on the panel board.



4) **Caution**

- Take care of insulation because it is not insulated between signal input line and power line.
- Be sure to supply the power after checking polarity of the power.
- If polarity of the power is connected in the opposite direction, the inner circuit can be damaged.
- Take care of direction of the connector in order not to mount it in the opposite direction.
- If the display indicate 1 or -1, be sure to turn off the power and check external connection, in this case the input signal is higher than full scale range or the power is lower than the rated voltage.